Remarks

Claims 1, 3, 5-12, 14-16, 18, 20-27, 29-33, and 35 are pending and at issue in the present application. Claim 36 is canceled herein.

All of the claims stand rejected as obvious over various combinations of Van Der Brug (US 6954648), Malackowski (US 2003/0093103), and DeGioia (US 6205411).

The undersigned thanks Examiners Raj and Koppikar for courtesies extended during a telephonic interview conducted on November 23, 2009. The amendments and remarks presented herein summarize and amplify the substance of that interview.

For the reasons presented herein, the applicants traverse all of the pending rejections.

Claim 1 recites a method of determining a consequent step that is to be performed immediately after a particular step within a multi-step surgical procedure. The method comprises the steps of identifying a multi-step surgical procedure, and providing a computer navigation system that implements the multi-step surgical procedure, wherein the computer navigation system performs the steps of identifying the particular step within the multi-step surgical procedure, identifying a component usable in the multi-step surgical procedure, and determining the consequent step within the multi-step surgical procedure based on the identity of the component and the particular step. The computer navigation system selects the consequent step from a group of steps of the multi-step surgical procedure including at least a current step, a prior step, and a future step. The computer navigation system further performs the step of, based on the consequent step, automatically jumping to and displaying a representation related to the consequent step on a display unit without direct interaction between a user and the computer navigation system.

Claim 16 recites a computer navigation system for implementing a multi-step surgical procedure, wherein the multi-step surgical procedure comprises a plurality of steps including at least a particular step, a prior step performed before the particular step, and a future step performed after the particular step. The computer navigation system comprises means for identifying the particular step within the multi-step surgical procedure, means for identifying a component usable in the multi-step surgical procedure, means for determining the consequent step within the multi-step surgical procedure based on the identity of the component and the particular step, and means for automatically jumping to and displaying a representation related to the consequent step without

direct interaction between a user and the computer navigation system based on the consequent step. The consequent step is selected from a group of steps including at least the particular step, the prior step, and the future step.

Claim 35 recites a method of determining a consequent step within a multi-step procedure comprising the steps of identifying a multi-step procedure, and providing a computer navigation system that implements the multi-step procedure. The computer navigation system performs the steps of identifying a particular step within the multi-step procedure, identifying a component usable in the multi-step procedure, identifying a particular location of the component, determining the consequent step within the multi-step procedure based on the location, the identity of the component, and the particular step, and displaying a representation related to the consequent step on a display unit based on the consequent step. The consequent step is selected from a group of steps including at least a current step, a prior step, and a future step.

None of the applied references discloses or suggests, without the benefit of the teachings of the applicants' own disclosure, either a method of determining a consequent step that is to be performed immediately after a particular step within a multi-step surgical procedure, a computer navigation system for implementing a multi-step surgical procedure, or a method of determining a consequent step within a multi-step procedure, wherein the computer navigation system selects or includes means to select the consequent step based on the identity of the component, and the consequent step is selected from a group of steps including at least a current step, a prior step, and a future step.

In fact, the applied references at most suggest that, based on an identity of a surgical tool, a computer navigation system could select a consequent step in a multi-step surgical procedure from a group of steps including at most the current step and a future step. However, the applied references do not suggest that the consequent step selected based on the identity of the surgical tool could be selected from a group including a prior step.

In particular, Malackowski discloses a surgical navigation system that implements a multi-step surgical procedure and reacts to identifying information from a surgical tool by displaying a warning and/or preventing actuation of the next step if the tool has unsatisfactory parameters for the next step in a predetermined sequence of surgical steps. Malackowski in relevant part at most

suggests that the surgical navigation system selects the appropriate response based on what the current step and the next step in the multi-step surgical procedure are supposed to be. However, Malackowski does not disclose that the surgical navigation system reacts by selecting a consequent step from a group of steps that include a prior step of the multi-step surgical procedure.

Van Der Brug and DiGioia do not supply the deficiency pointed out in Malackowski. Van Der Brug discloses a surgical navigation system that, in relevant part, discloses only that the surgical navigation system tracks the location of a surgical instrument within a surgical field. However, Van Der Brug does not disclose that the surgical navigation system selects any steps of a multi-step procedure based on an identity of the surgical tool. DiGioia discloses a computer-assisted surgery planner and intra-operative guidance system including a navigation system that works progressively through a pre-defined sequence of pre-operative planning steps and intra-operative surgery steps. DiGioia does not disclose or suggest that the navigation system would ascertain an identity of a surgical tool and select a consequent surgical step that is a prior step in the surgery based on the identity of the surgical tool.
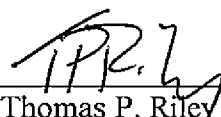
For at least these reasons, independent claims 1, 16, and 35, and claims 3, 5-12, 14, 15, 18, 20-27, and 29-33 dependent variously thereon, are not obvious over the applied reference because the applied references do not disclose or suggest every element recited therein.

All of the pending rejections having been fully addressed herein, withdrawal of the pending rejections and allowance of the claims at issue are requested.

Respectfully submitted,

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